The invention relates to a method to the Anzüchtung of bakteriologisch pure cultures with the help of a device, which consists of a piece tube welded at both ends, and a liquid sterile nutrient medium as well as lyophilized bacterial strains in ampoules contains.

The known and conventional rearing procedures presuppose minimal laboratory equipment, in particular the presence of burner and sterile apparatuses.

In order to protect the bacteria stored in ampoules with their transmission on the sterile nutritive substances an infection, the break of the ampoule must be abflambiert. This method has the disadvantage that industrie and industrial concerns, in particular cheese factories and dairies for lack of corresponding laboratory equipment hardly in the layer are, bottom exclusion of foreign infections bakteriologisch pure cultures anzuzüchten. From this reasons are the mentioned operations with the inoculation of their operating cultures on operational starter cultures instructed already angezüchtete.

The invention aims at to exclude at any time and everywhere each foreign infection with the rearing and to ensure bakteriologisch pure cultures. This object becomes according to invention with the help of the appended descriptive device by the fact achieved that the ampoule with the lyophilized bacteria without opening the tube broken 10, which leads to the Anzüchtung of the bacteria on the nutritive substance to an active culture, whose activity and bacteria trimming can be increased thereby that the first Anzüchtung in one is to be already made prevented 7 cell of the tube piece with the help of a pinchcock 6a, in whose terminal after made bacterial growths with the help of a second pinchcock 6b one become that underneath the first pinchcock 6a in the upper half of the first cell 7a by means of a third pinchcock 6c a certain amount culture 8 tied and by removal, still contained in the welded tube except the nutrient medium, becomes the first mounted pinchcock 6a on the nutrient medium of the second cell 7b on and other-grown becomes. This procedure is to be repeated as required and liking.

The device according to invention consists transparent tube 3, preferably of plastic, of in its length and its diameter the respective needs which can be adapted a piece with welded ends 4. The tube contains a sterile packaged, individual selectable, liquid nutrient medium 1 and or of several external germ-free ampoules 2, which are filled by bacterial strains with single lyophilized bacterial strains or with a mixture. The ampoule exhibits an announced, light breakable site. The transparent tube can graduates to 5 and for the example with XYI, XYII, XYIV ä to be marked. On the basis the pictorial representation of an embodiment the device according to invention and the rearing procedure according to invention become more near explained. Show:
Fig. 1 a plan view on the device;
Fig. 2 a plan view on the device with abgeschweisster cell 9 to control purposes. Bakteriologi control investigations of the nutrient medium or the grown culture can become at any time made, as a part of the tube with the corresponding content is abgeschweisst;

Fig. 3 side view of the device, which became 7 divided by pinchcocks 6 in cells;
Fig. 4 plan view on the device after Fig. 3 with representation of the other breeding of the grown culture Ia of cell 7a to cell 7b. By opening by hinges pinchcocks 6 after Hofmann or with the help of similar instruments absolute dense cells 7 can be squeezed off. Fig. 3 and 4 shows; that the procedure of the other breeding from cell can often be repeated to cell to the need corresponding arbitrary.

When other breeding it is to be always made certain that each cell becomes only zirka the half of its volume with nutritive substance filled, so that sufficient space for pinchcocks remains free.

Also the invention process of the other breeding can become bottom hermetic closure of the device according to invention and thus bottom exclusion of any risk of infection performed. It possible easily obtaining a starter culture with sufficient high Keimzahl and activity.

CLAIMS

I. Method to the Anzüchtung and other breeding of in ampoules stored lyophilized anaerobic bacteria on sterile nutrient mediums in welded tube to active cultures, characterised in that the ampoule without opening the tube broken become, which leads to the Anzüchtung of the bacteria on the nutritive substance to an active culture, whose activity and bacteria trimming can be increased thereby that the first Anzüchtung in a hose cell prevented with the help of a pinchcock is to be already made, in whose terminal after made B document rienwachstum with the help of an other pinchcock a second cell to be separated is, whose inoculation becomes achieved by the fact that underneath the first pinchcock in the upper half of the first cell by means of a third pinchcock a certain amount culture tied and through Removal of the first mounted pinchcock on the nutrient medium of the second cell on and other-grown becomes, which procedure can be repeated as required and to liking.

II. Device to the Anzüchtung and other breeding a sterile individual selectable, liquid nutrient medium packaged welded at both ends by biological pure bacterial cultures, characterised in that into, an arbitrary prolonged transparent piece tube and or several external germ-free ampoules contain, which are filled by bacterial strains with single Bakte rienstämmen or with a mixture and exhibit an announced light breakable site.

UNTERANSPRÜCHE
1. Device after claim II, characterised in that it by pinchcocks in cells divided is.

2. Device after claim II and Unteranspruch 1, characterised in that the tube piece and the single cells to be marked and graduated can.

** WARNING ** end DESC field could overlap beginning CLMS **.